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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/878,861	06/11/2001	Juha Ylitalo	930.329USW1	2648
32294	7590	11/26/2004	EXAMINER	
SQUIRE, SANDERS & DEMPSEY L.L.P.			HA, DAC V	
14TH FLOOR			ART UNIT	
8000 TOWERS CRESCENT			PAPER NUMBER	
TYSONS CORNER, VA 22182			2634	

DATE MAILED: 11/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/878,861

Applicant(s)

YLITALO, JUHA

Examiner

Dac V. Ha

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 June 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 34-66 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 34-66 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Objections***

1. **Claims 34-66** are objected to because of the following informalities:

**Claim 34:**

Line 4, "the area" should be changed to "an area".

Line 6, "said receiving units" should be changed to "said plurality of receiving units".

Line 7, "said at least partially known part" should be changed to "the at least partially known part".

Line 9, "said dividing arrangement" should be changed to "the dividing arrangement".

**Claim 35:**

Line 1, "claim 1" should be changed to "claim 34".

**Claim 38:**

Lines 2-3, "a interference removing unit" should be changed to "an interference removing unit".

**Claim 44:**

Lines 2-3, "said allocated signal from said given one of the sections" should be changed to "the allocated signal from a given one of the sections".

**Claim 45:**

Line 3, "the section" should be changed to "the sections".

Line 3, "the adjacent sections" should be changed to "adjacent sections".

**Claim 47:**

Line 2, "the difference" should be changed to "a difference".

Line 2, "the desired signal" should be changed to "a desired signal".

Line 3, "received signal" should be changed to "received signals".

**Claim 48:**

Line 2, "the difference" should be changed to "a difference".

Line 2, "the desired signal" should be changed to "a desired signal".

Line 3, "received signal" should be changed to "received signals".

**Claim 49:**

Line 2, "the desired signal" should be changed to "a desired signal".

**Claim 53:**

Line 3, "said signal" should be changed to "said signals".

**Claim 54:**

Line 2, "said signal" should be changed to "said signals".

**Claim 56:**

Line 2, "received signal" should be changed to "received signals".

Line 3, "the associated receiving unit" should be changed to "an associated unit".

**Claim 65:**

Line 4, "the area" should be changed to "an area".

Line 6, "said receiving units" should be changed to "said plurality of receiving units".

Lines 7-8, "said at least partially known part of said signal" should be changed to "the at least partially known part of said signals".

Line 9, "said dividing arrangement" should be changed to "the dividing arrangement".

Line 12, "a plurality of different sections" should be changed to "the plurality of different sections".

**Claim 66:**

Line 4, "the area" should be changed to "an area".

Line 6, "said receiving units" should be changed to "said plurality of receiving units".

Lines 7-8, "said at least partially known part of said signal" should be changed to "the at least partially known part of said signals".

Line 9, "said dividing arrangement" should be changed to "the dividing arrangement".

Line 12, "a plurality of different sections" should be changed to "the plurality of different sections".

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claims 34-66** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. **Claim 34** recites the limitation "said receiver units" in lines 11-12. There is insufficient antecedent basis for this limitation in the claim.
5. **Claim 51** recites the limitation "said matrix" in line 3. There is insufficient antecedent basis for this limitation in the claim.
6. **Claim 65** recites the limitation "said receiver units" in line 11. There is insufficient antecedent basis for this limitation in the claim.
7. **Claim 66** recites the limitation "said receiver units" in 11. There is insufficient antecedent basis for this limitation in the claim.

***Allowable Subject Matter***

8. **Claims 34-66** are allowed.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Inoue et al. (US 6,232,927) disclose Array Antenna Apparatus For Use In Spread Spectrum Communications With A Particular Interval Between Antenna Elements.

Wax et al. (US 6,466,565) disclose Measurement Of Spatial Signature Information In CDMA Wireless Communication Systems.

Chang et al. (US 6,249,251) disclose Hardware Efficient Demodulator For CDMA Apative Antenna Array Systems.

Art Unit: 2634

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dac V. Ha whose telephone number is 571-273-3040.

The examiner can normally be reached on 5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Dac V. Ha', with a horizontal line underneath.

Dac V. Ha  
Examiner  
Art Unit 2634